



Paul E. Helliker
Director

Pesticide Drift

The pesticide drift issue

Pesticide drift has been known to impact residential areas bordering agricultural fields, cause damage to non-target crops, create human health risks, and contaminate the environment.

How does pesticide drift occur?

Pesticide drift occurs from all applications, and becomes unacceptable when pesticides are applied by imprecise methods or under environmental conditions which prohibits the applicator from maintaining control over the path the pesticide takes once it leaves the application equipment.

Definition of pesticide drift

The Department of Pesticide Regulation (DPR) defines drift as the pesticide that moves through the air and is not deposited on the target area at the time of application. Drift does NOT include movement of pesticide and associated degradation compounds off the target area after application (e.g., translocation, volatilization, evaporation, or the movement of pesticide dusts or pesticide residues on soil particles that are windblown after application.)

Why is DPR changing the current regulations?

Current pesticide drift control regulations apply only to restricted materials, the class of pesticides described in Title 3, California Code of Regulations section 6400. DPR plans to change the regulations by applying ground and aerial drift control restrictions to both restricted and nonrestricted pesticides alike, while streamlining and consolidating current regulations. Current application standards, such as minimum wind speed, maximum wind speed, boom length on aircraft, nozzle specifications, shutoff valves, etc. are described in various regulation sections. Placing the application standards in one location will make it easier for the reader to find this information.

These changes constitute a restatement of standards currently in place. No new standards are proposed in this initial action.

Continued on next page

FLEX YOUR POWER! *The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web site at <www.cdpr.ca.gov>.*



Pesticide Drift, Continued

What DPR plans to do

Spray drift control activities will be implemented to minimize or limit to the extent possible, non-target crop damage, human exposure, and environmental contamination caused by drift of restricted and nonrestricted pesticides. DPR plans to approach these activities in phases. The first phase will involve liquid formulations of pesticides. Granular and dust formulations of pesticides will be discussed in a later phase. The proposed regulation changes for Phase 1 are described below:

3CCR section	Proposed Action by DPR
6000 - Definitions	This section will: <ul style="list-style-type: none">• amend the current definition of a “buffer zone” for clarification;• add “Volume median diameter,” a measurement related to the pesticide application spray pattern; and• delete “Restricted materials hazard chart,” as this chart is out-of-date and no longer valid for accurate usage.
6460 – Drift Control	This section will be repealed, and some of the language used in this section will be moved to a new section, 6615 – Drift Minimization. This was done to streamline and consolidate the regulations.
6466 – Paraquat	This section will be repealed, and some of the language used in this section will be moved to a new section, 6615 – Drift Minimization. This was done to streamline and consolidate the regulations.
6470 – Cotton Harvest Aids	Some of the language used in this section will be maintained, while other language will be repealed. Some of the language used in this section will be moved to a new section, 6615 – Drift Minimization.
6615 – Drift Minimization	Elements of other sections have been incorporated into this new proposed section. This section will describe the requirements that must be met by pesticide applicators applying pesticide spray solutions from the ground or by air. By moving these requirements from Chapter 2 (Pesticides) to Chapter 3 (Pest Control Operations), application restrictions for pesticide spray solutions will now apply to all liquid pesticides.

Continued on next page

Pesticide Drift, Continued

What DPR is seeking	In order to create the most effective pesticide regulations, DPR is seeking assistance from various persons and professional organizations. The valuable knowledge, talent, and experience in their specialized field of work will be essential towards successfully completing this endeavor.
Alternatives	DPR has not identified any feasible alternatives to the proposed regulatory action that would lessen any adverse impacts, including any impacts on small businesses. Suggested alternatives will be welcome.
Future activities	<p>Revising current “drift control” regulations and adopting drift minimization requirements is the first phase of DPR’s long-range plan for minimizing pesticide drift.</p> <p>Phase two will most likely involve additional regulatory changes, including a discussion on granular and dust formulations of pesticides, and the development of outreach activities and materials.</p>

Suggested Drift Control and Associated Regulations--Table of Contents

October 2001

- Proposed deletions are indicated by ~~strikeout~~.
- Proposed additions are indicated by underline.

Title 3, California Code of Regulations (3 CCR)

- *Repeal* 3 CCR section 6460. Drift Control
- *Repeal* 3 CCR section 6466. Paraquat
- *Amend* 3 CCR section 6000. Definitions 2
- *Amend* 3 CCR section 6470. Cotton Harvest Aids 3
- *Adopt* 3 CCR section 6615. Drift Minimization 4

Predecisional document
For discussion only
(r. 10/01)

Suggested Drift Control and Associated Regulations (October 2001)

Amend 3 CCR section 6000

6000. Definitions

Delete the following definition:

~~“**Restricted materials hazard chart**” means a chart developed by the department that specifies the degree of potential hazard for each restricted material to public and occupational health, adverse impact on pest management systems, users of restricted materials, farm workers, bees, nontarget plants, fish, and wildlife, and other parts of the environment.~~

NOTE: Authority cited: Sections 11456, 11502, 12111, 12781, 12976, 12981, and 14005, Food and Agricultural Code.

Reference: Sections 11408, 11410, 11498, 11501, 11701, 11702(b), 11704, 11708(a), 12042(f), 12103, 12971, 12972, 12973, 12980, 12981, 13145, 13146, and 14006, Food and Agricultural Code.

Amend 3 CCR section 6470 to read:

6470. Cotton Harvest Aids.

Tribufos (DEF, Folex) or paraquat when used as cotton harvest aids, shall be used in accordance with the following restrictions:

(a) Paraquat applications shall not be made within 1/8 mile of:

(1) a school; or

(2) any area zoned as residential where people are actually residing or other inhabited residential area designated by the commissioner.

(b) Tribufos (DEF, Folex) applications shall not be made within:

(1) 1/8 mile of a school, or within 1/2 mile of a school in session or due to be in session within 24 hours. School session shall be those times when students are attending scheduled classes or when designated school activities are scheduled to occur; or

(2) 1/2 mile of any area zoned as residential where people are actually residing or other inhabited residential area designated by the commissioner.

NOTE: Authority cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code.

Reference: Sections 11501, 14006, and 14102, Food and Agricultural Code.

Adopt 3 CCR section 6615 to read:

6615. Drift Minimization.

Provisions of this section apply to applications of pesticide spray solutions.

(a) Aerial applications of a pesticide spray solution shall meet the following requirements:

(1) Nozzle orifices shall be directed backward.

(2) Flow of liquid from each nozzle shall be controlled by a positive shutoff system.

(3) Functional boom length, measured from outboard nozzle to outboard nozzle, shall not exceed 75% of the overall wing span or rotor length.

(4) Boom pressure shall not exceed the manufacturer's recommended pressure for the nozzles being used.

(5) Apply only when wind speed is 3 to 10 miles per hour at the application site, as measured by an anemometer positioned four feet above the ground.

(6) Discharge shall start after entering the target site; discharge height shall not exceed 10 feet above the crop or target; discharge shall be shut off whenever necessary to raise the equipment over obstacles; discharge shall be shut off before exiting the target site.

(b) Ground-based applications of a pesticide spray solution shall meet the following requirements:

(1) No pesticide spray solution shall be applied by vehicle-mounted or towed ground equipment, except as follows:

(A) Apply only when wind speed is 10 miles per hour or less at the application site, as measured by an anemometer positioned four feet above the ground. This requirement does not apply to greenhouse or indoor applications.

(B) Discharge shall start after entering the target site; discharge shall be shut off before exiting the target site.

(c) Aerial application equipment and ground-based application equipment, other than hand sprayers, when applying herbicides or cotton harvest aids shall meet the following requirements:

(1) Aircraft nozzles shall not be equipped with any device or mechanism which would cause a sheet, cone, fan, or similar type dispersion of the discharged material except as otherwise provided.

(2) Aircraft boom pressure shall not exceed 40 pounds per square inch.

(3) Aircraft nozzles shall be equipped with orifices directed backward, parallel to the horizontal axis of the aircraft in flight.

(4) Aircraft operating in excess of 60 miles per hour shall be equipped with jet nozzles having an orifice of not less than one-sixteenth of an inch in diameter.

(5) Helicopters operating at 60 miles per hour or less may instead be equipped with:

(A) Nozzles having an orifice not less than one-sixteenth of an inch in diameter. A number 46 (or equivalent) or larger whirlplate may be used; or

(B) Fan nozzles with a fan angle number not larger than 80 degrees and a flow rate not less than one gallon per minute at 40 pounds per square inch pressure (or equivalent); or other approved by the director.

(6) Ground-based application equipment, other than handguns, shall be equipped with:

(A) Nozzles having an orifice not less than one-sixteenth of an inch in diameter (or equivalent) and operated at a boom pressure not to exceed 30 pounds per square inch; or

(B) Low-pressure fan nozzles with a fan angle number not larger than 80 degrees and fan nozzle orifice not less than 0.2 gallon per minute flow rate (or equivalent) and operated at a boom pressure not to exceed 15 pounds per square inch.

(d) Exemptions.

(1) This section does not apply during a pest control or eradication program approved by the Secretary of Food and Agriculture or during the implementation of vector control programs conducted by a public agency, or its contractor, operating under a cooperative agreement with the Department of Health Services pursuant to Health and Safety Code section 116180.

(2) The provision of (a)(6), discharge height limitation, does not apply where the terrain is irregular, such as some forestry and range land application, or the interests of pilot safety precludes flying within

Predecisional document
For discussion only
(r. 10/01)

10 feet of the crop or target.

(3) The provision of (b)(1)(A), wind velocity, does not apply to soil injection applications.

NOTE: Authority cited: Sections 11456, 12781, 12972, 12976, 14001, 14005, and 14102, Food and Agricultural Code.

Reference: Section 11501, 14006, 14033, and 14102, Food and Agricultural Code.